Notice of Allowability	Application No.	Applicant(s)	
	10/008,610	AEBISCHER ET AL.	
	Examiner	Art Unit	
	David Guzo	1636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *12/22/03*.

2. ☒ The allowed claim(s) is/are *1,11-16,21-28 and 30*.

3. ☒ The drawings filed on *11/8/01* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *3/18/04* .
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☒ Other *Decision on Petition under 37 CFR. 1.84*

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas J. Kowalski on 3/18/04.

The application has been amended as follows:

In the **Specification**:

On Page 27, beginning at line 16, replace the paragraph with the following:

Details on the genomic structure of some lentiviruses may be found in the art. By way of example, details on HIV and EIAV may be found from the NCBI Genbank database (i.e. Genome Accession Nos. AF033819 and AF033820 respectively). Details of HIV variants may also be found at httn://hiv-web.lanl.nov. Details of EIAV variants may be found through [httn://www.]ncbi.nlm-nih-qov.

On Page 38, beginning at line 26 and ending on page 39, line 15, replace the paragraph with the following:

However it is possible to avoid these problems by selecting from a large library of sequences, with many more rounds of selection (20 to 40), aptamers that bind to

innocuous well-characterized compounds with a record of human use. Ideally these are orally available, with known pharmacokinetics with a T1/2>12h. These compounds are selected to be able to enter the tissue where it is desired to control expression. For example, for neural tissue the known ability to cross the blood brain barrier is important. The aptamer sequence is then inserted in the gene, the expression of which is to be controlled, and the safe permeable molecule used to turn off protein expression as desired. Examples of such small drug molecules include prescription drugs such as tetracycline or doxycycline, but also many over the counter (OTC) drugs (see such as aspirin or other mild analgesics), or compounds on the FDA list of "generally recognized as safe" (GRAS) compounds (see [www.]fda.nov/cder/otc). Other examples are nicotine (normally used to quit smoking) and other nucleoside analogues, and various food additives including color dyes etc. If single aptamer sequences are responsive but only partially suppress expression, multiple copies can be inserted. The gene, the expression of which is to be controlled, can in [genral] general be delivered to animals and patients by any of the available viral or non-viral vector systems (See "The development of Human Gene Therapy T. Friedmann Ed., Cold Spring Harbor Laboratory Press, 1999). It can be used to control expression of a therapeutic gene, an accessory gene such as a selectable marker or expression of a viral protein of a viral vector. In the case of a viral vector this can also be used to create replicating vectors, the replication of which is controllable by administration of an outside agent.

On Page 42, beginning at line 13, replace the paragraph with the following:

Due to the degenerate nature of the Genetic Code, it will be appreciated that numerous gag-pol sequences can be achieved by a skilled worker. Also there are many retroviral variants described which can be used as a starting point for generating a codon optimised gag-pol sequence. Lentiviral genomes can be quite variable. For example there are many quasi-species of HIV-I which are still functional. This is also the case for EIAV. These variants may be used to enhance particular parts of the transduction process. Examples of HIV-I variants may be found at [httn://]hiv-web.lanl.cov. Details of EIAV clones may be found at the NCBI database: [http://www.]ncbi.nlm.nih.nov.

In the **Claims**:

Claim 27 (Currently amended) the method of claim 1, wherein there is [growth factor] GDNF expression for a duration of up to 8 months.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Guzo, Ph.D., whose telephone number is (571) 272-0767. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM. The examiner can also be reached on alternate Fridays

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Irem Yucel, Ph.D., can be reached on (571) 272-0781. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAVID GUZO
PRIMARY EXAMINER

David Guzo
March 18, 2004